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**Artificial Intelligence in the Electoral Process: Opportunities, Risks and Models of
Legal Regulation**
(International Experience and the Republic of Armenia)

The rapid development and widespread accessibility of artificial intelligence technologies in recent years have become one of the defining factors in the transformation of public administration systems and the functioning of democratic institutions. Algorithmic systems are increasingly applied in the management of information flows, public administration, data analysis, and communication between public and private legal entities and citizens.

The implementation of AI enhances the efficiency of administrative processes, accelerates the processing of large datasets, and supports decision-making based on analytical models. Public authorities employ algorithms to automate service delivery, forecast socio-economic developments, identify risks, and optimize resource allocation. At the same time, digital platforms and algorithmic content moderation mechanisms exert a significant influence on the formation of public opinion and the exercise of freedom of expression.

The electoral process, as a fundamental mechanism for the realization of popular sovereignty, is likewise increasingly interacting with the digital environment. Artificial intelligence is used to analyze large volumes of data, automate procedures, monitor the information space, and detect anomalies and potential violations of electoral legislation.

The use of algorithmic systems in the electoral sphere encompasses a broad range of applications — from technical support for election commissions and the processing of citizens' complaints to voter turnout forecasting, analysis of electoral preferences, and the identification of coordinated disinformation campaigns. In several states, AI tools are utilized to detect suspicious transactions in campaign financing, analyze candidates' media activity, and monitor compliance with campaign regulations in the digital environment.

At the same time, the digitalization of the electoral process generates new risks. The algorithmic processing of voters' data may raise serious concerns regarding the protection of personal information and the prohibition of unlawful interference with private life. The use of AI in the information sphere is associated

with threats of public opinion manipulation, political microtargeting, and the dissemination of synthetic content (deepfakes) capable of influencing the free expression of citizens' will.

In these circumstances, the principles of transparency, accountability, and technological neutrality of regulation acquire particular significance. It becomes essential to establish clear legal frameworks governing the use of AI in the electoral process, ensure independent audits of algorithmic systems, and create effective mechanisms for the protection of electoral rights in the digital environment. Striking a balance between innovation and democratic safeguards becomes a key condition for preserving the legitimacy of elections in the era of digital technologies.

Special attention should be paid to the relevance of this issue during the campaign period. It is at this stage of the electoral process that informational influence on voters is most intensive, public opinion is shaped, and final decisions regarding support for particular candidates or political forces are made.

The use of artificial intelligence technologies during the campaign period may significantly amplify both positive and negative trends. On the one hand, AI may be employed to monitor compliance with campaign legislation, detect unlawful advertising, identify coordinated information attacks, and counter the dissemination of misinformation. On the other hand, algorithmic tools enable highly precise microtargeting, behavioral analysis of voters, and the creation of personalized campaign messages, which—without proper regulation—may lead to manipulative influence on voters' will.

In the context of the rapid proliferation of synthetic content and automated information dissemination systems, issues of transparency regarding the sources of campaign materials, the labeling of political advertising, and the accountability of electoral actors for the use of AI technologies become particularly pressing. Thus, during the campaign period, the legal regulation and oversight of AI application become especially sensitive from the perspective of ensuring the principles of free and fair elections.

In preparing this report, it is necessary to comprehensively assess the potential and risks associated with the use of artificial intelligence in the electoral process, analyze the key international models of legal regulation, and formulate proposals for improving the electoral legislation of the Republic of Armenia which, with appropriate adaptation, may also be applicable within the legal systems of CIS member states.

1. The Potential of Artificial Intelligence in the Electoral Process

1.1 Administration and Enhancement of Electoral Efficiency

AI technologies may be employed by election management bodies to optimize administrative and technical procedures, including:

- planning the location and logistics of polling stations;
- forecasting voter turnout;
- automated analysis of citizens' complaints and appeals;
- detecting technical inaccuracies and duplicate entries in voter registers.

The use of such solutions helps reduce administrative burdens, accelerate information processing, and minimize organizational errors.

1.2 Expanding Accessibility and Voter Awareness

Digital assistants, chatbots, and automated information services are capable of:

- providing up-to-date information on voting deadlines, procedures, and rules;
- facilitating participation by persons with disabilities;
- countering misinformation through the prompt dissemination of official clarifications.

Subject to appropriate legal and technical oversight, such tools may strengthen the implementation of the principle of universal and equal suffrage.

1.3 Data Analytics and Detection of Anomalies

AI algorithms may be used to analyze voting statistics in order to identify deviations from typical patterns. This makes it possible to:

- identify polling stations with an increased likelihood of violations;
- assess the substantiation of submitted complaints;
- optimize the allocation of monitoring and oversight resources.

At the same time, the results of algorithmic analysis must remain auxiliary in nature and must not replace legal assessment or procedural evidence.

1.4 Monitoring of the Information Space

Algorithmic tools are applied to:

- detect unlawful campaign activities;
- analyze coordinated bot activity;
- identify disinformation campaigns on social media platforms.

When implemented in accordance with the principles of transparency and accountability, such mechanisms can enhance oversight of compliance with campaign regulations.

2. Risks and Challenges of Artificial Intelligence Use

2.1 Microtargeting and Covert Influence

AI significantly expands the possibilities of political microtargeting based on personal data processing and behavioral profiling. This may result in:

- covert influence on specific groups of voters;
- the creation of “information bubbles”;
- violations of the principle of equal access to political information.

The Cambridge Analytica case demonstrated the scale of potential abuses associated with unlawful data processing and manipulative voter profiling.

2.2 Deepfakes and Synthetic Media

Modern AI technologies enable the creation of highly realistic fake audio and video materials imitating statements by candidates or public officials. The dissemination of such content:

- undermines trust in information;
- complicates fact-checking processes;
- poses a threat to the integrity and transparency of electoral campaigning.

2.3 Algorithmic Opacity and Lack of Accountability

Many AI systems operate as “black boxes.” If such technologies:

- rank political content;
- automatically moderate publications;
- determine the reach of campaign materials,
- the absence of transparency in their functioning may contradict the principles of openness and verifiability of electoral procedures.

2.4 Algorithmic Bias and Discrimination

AI systems may reproduce and amplify existing social biases, which may manifest in:

- uneven exposure of campaign messaging among different population groups;
- reduced visibility of content from certain political actors;
- distortion of the public political agenda.

2.5 Personal Data Protection and Cybersecurity

The electoral process involves the processing of significant volumes of personal data. The application of AI increases risks such as:

- data breaches;
- unlawful profiling;

- cyber interference with elements of electoral infrastructure.

3. International Models of Legal Regulation

3.1 European Union: A Risk-Based Approach

The European Union has developed a comprehensive regulatory framework for digital technologies, including:

- the GDPR, establishing strict requirements for personal data processing;
- the Digital Services Act (DSA), introducing rules on algorithmic transparency and countering manipulative content;
- the EU AI Act, providing a risk-based classification of AI systems with enhanced requirements for high-risk applications.

This model seeks to balance technological innovation with the protection of fundamental rights and the accountability of digital platform operators.

3.2 United States: A Decentralized Approach

The United States does not have a unified federal law comprehensively regulating AI. Nevertheless:

- certain states have introduced mandatory labeling requirements for synthetic content;
- oversight of political advertising in the digital environment is being strengthened;
- regulations have been adopted to prevent the dissemination of misleading deepfakes during election periods.

3.3 United Kingdom, Canada, Australia

These countries place emphasis on:

- the development of guidelines and codes of good practice;
- transparency standards for digital political advertising;
- institutional cooperation between governments and digital platforms.

This approach combines elements of self-regulation and state oversight, with a strong focus on transparency and collaborative governance.

4. Republic of Armenia: Challenges and Practical Examples of AI Application in Electoral Practice

In the context of the digitalization of public administration, the Republic of Armenia is gradually introducing technological solutions into the electoral process. Although the direct use of fully developed

artificial intelligence systems in electoral administration remains limited, certain elements of algorithmic data processing and digital tools are already in use or may be integrated in the near future.

Practical Elements of Digitalization Relevant to AI

- **Electronic Voter Identification and Registration Technologies**

Armenia employs technical means of voter identification (including electronic registration and identity verification devices), which help prevent multiple voting and enhance procedural transparency. Such systems could potentially be supplemented with AI-based analytical modules capable of detecting anomalies and technical inconsistencies in real time.

- **Digital Publication of Data and Transparency**

The Central Electoral Commission (CEC) publishes voting results and related data in digital format. This creates the preconditions for the application of algorithmic tools to analyze statistical data, identify atypical turnout or voting patterns, and improve internal auditing mechanisms.

- **Monitoring of the Information Space**

During electoral campaigns, active monitoring of media outlets and social networks is conducted. Although this monitoring is primarily carried out through traditional methods, the prospective integration of AI could facilitate the detection of coordinated information campaigns, bot activity, and the dissemination of synthetic content.

Key Challenges

- **Regulatory Gap in the Field of AI**

The electoral legislation of the Republic of Armenia does not currently contain specific provisions governing the use of artificial intelligence systems in the electoral process. There are no explicit requirements concerning algorithmic transparency, AI system audits, or the labeling of synthetic political content.

- **Microtargeting and Personal Data Protection**

The active use of social media increases the risk of covert political microtargeting based on voters' personal data. Although Armenia has legislation on personal data protection, its application in the context of political advertising and algorithmic profiling requires further clarification and specification.

- **Deepfakes and Disinformation**

The dissemination of synthetic audio and video materials may undermine trust in the electoral process, particularly during the campaign period. At present, there are no specific legal mechanisms addressing deepfake content within the electoral context.

- **Cybersecurity of Electoral Infrastructure**

The digitalization of electoral procedures increases the importance of cybersecurity. The use of AI in election administration must be accompanied by strict information security standards and independent technical auditing mechanisms.

An illustrative example of the use of artificial intelligence technologies in the political process of the Republic of Armenia occurred on 12 February 2026, during the congress of the political party “*Strong Armenia*” . At the congress, a programmatic address by the party leader and candidate for the position of Prime Minister, Samvel Karapetyan, was presented to the participants. At the time of the event, Mr. Karapetyan was under house arrest and did not physically attend the congress. His address was delivered through an audiovisual recording presented by his legal counsel. According to available information, artificial intelligence technologies were used in preparing this address, enabling the reproduction of the politician’s voice and visual image.

In essence, this constitutes the use of synthetic content technologies (AI-generated content), creating the effect of personal participation in the absence of the individual’s direct involvement in the event. This case sparked public debate regarding the legal nature of such communication, its permissibility within the framework of electoral campaigning, and its potential impact on the free expression of citizens’ will.

From a legal perspective, this example highlights several fundamentally important aspects.

First, it raises the issue of whether such communication should be legally qualified as a form of electoral campaigning and whether it requires specific regulatory provisions. If a synthetically reproduced image of a candidate is perceived by the audience as a direct public appearance, this may affect the conditions of equal political competition.

Second, it brings to the forefront the problem of mandatory labeling of synthetic content. The absence of clear disclosure regarding the use of AI technologies may create a distorted perception among voters concerning the nature and circumstances of political communication.

Third, the case underscores the necessity of defining, at the normative level, the permissible limits of AI use during the electoral period, particularly in situations where technological tools effectively substitute for a candidate’s physical participation in public events.

It should be emphasized that the mere use of AI does not in itself imply unlawfulness. However, in the absence of clear legislative frameworks, such practices may generate legal uncertainty and pose potential risks to the principles of transparency, fair competition, and public trust in the electoral process.

Thus, the example from the practice of the Republic of Armenia demonstrates that the regulation of synthetic political content is no longer an abstract theoretical issue but has acquired concrete practical

significance within the national electoral system. This further substantiates the need for targeted amendments to the Electoral Code of the Republic of Armenia aimed at ensuring transparency and accountability in the use of artificial intelligence technologies in the political sphere.

Accordingly, the experience of Armenia confirms that the regulation of AI use in the electoral process has ceased to be a purely theoretical matter and requires a comprehensive and systematic normative solution.

In our view, the following directions may serve as relevant and forward-looking steps for the Republic of Armenia in regulating the application of artificial intelligence in the electoral process:

- enshrining, at the legislative level, the principles of transparency and accountability in the use of algorithmic systems within the electoral sphere;
- introducing mandatory labeling of synthetic (AI-generated) political content disseminated during the electoral campaign;
- establishing limitations or specific requirements for political microtargeting, including mandatory notification of voters regarding algorithmic profiling;
- strengthening guarantees of personal data protection in the context of political advertising and electoral campaigning;
- introducing procedures for independent technical and legal audits of AI systems used by public authorities in the electoral process;
- developing mechanisms of cooperation with digital platforms to ensure transparency of political advertising and prompt response to disinformation;
- enhancing digital literacy among voters, including raising awareness of the risks associated with deepfakes and manipulative content.

The implementation of these measures would make it possible to establish a balanced regulatory model that ensures both the integration of innovative technologies and the preservation of the fundamental principles of free, equal, and fair elections.

In conclusion, artificial intelligence is gradually becoming an integral element of modern electoral processes. In the absence of clear and well-designed legal regulation, its application may lead to a decline in public trust, an increase in manipulative practices, and the erosion of fundamental democratic principles. Therefore, the establishment of transparent rules governing AI use, the accountability of electoral actors, and the creation of effective oversight mechanisms are essential conditions for preserving the legitimacy and stability of democratic institutions in the context of digital transformation.